

Work Order ID 83491

83491

Page 1

April-18-12 2:45:42 PM

Item ID: D2662-2

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Saddle, RH In 206

Start Date: 18/04/2012 Start Qty: 600

6

Cust Item ID:

Required Date: 02/05/2012 Req'd Qty: 600

6

Customer:

Reference:

Approvals:

Process Plan: MLJ

Date: 12/04/19

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2662	Rev E								

100

0.00

100

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

10 φ

HAAS CNC vertical machine #1

Program part number and batch number.

Inspect part number and batch number are programmed

MACHINE AS PER FOLIO FB069 & DWG

DWG REV: E

FOLIO REV: AA

SL 12-05-14

110

0.00

110

CONVENTIONAL MILLING MACHINE

Mill Conv

Memo

0.00

10 φ

Conventional Milling Machine

Machine Keyway and inspect per attached dimension sheet

D.A 12/05/15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 83491***83491***

Page 2

April-18-12 2:45:42 PM

Item ID: D2662-2

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Saddle, RH In 206

Start Date: 18/04/2012 Start Qty: 6.00

6

Cust Item ID:

Required Date: 02/05/2012 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC2- Inspect parts off machine FAI/FAIB

0.00

SL 12-05-14

120

QC

Memo

0.00

10

φ

Quality Control

130

QC8- Inspect parts - second check

0.00

D.A. 12/05/16

130

QC

Memo

0.00

10

φ

Quality Control

140

Chemical Conversion Coat per QSI005 4.1

0.00

140

HandFinish

Memo

0.00

⑩

16/12-5-16

Hand Finishing

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 83491

83491

Page 3

April-18-12 2:45:42 PM

Item ID: D2662-2 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Saddle, RH In 206
 Start Date: 18/04/2012 Start Qty: 6.00 ***6*** Cust Item ID:
 Required Date: 02/05/2012 Req'd Qty: 6.00 ***6*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
150									
Powdercoat	Memo	0.00							
Powder Coating	START TIME: <u>7:30</u> OVEN TEMPERATURE:								
	FINISH TIME: <u>3200 F</u>								
		<u>8:00</u>							
160	QC3- Inspect Part Finish	0.00							
160									
QC	Memo	0.00							
Quality Control									
170	Identify as per dwg & Stock Location: <u>434</u>	0.00							
170									
Packaging	Memo	0.00							
Packaging									

Handwritten notes and stamps:
 10X ✓
 12/05/17
 10 φ
 BL 12-5-17
 44817
 (10)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 83491***83491***

Page 4

April-18-12 2:45:42 PM

Item ID: D2662-2

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Saddle, RH In 206

Start Date: 18/04/2012 Start Qty: 6.00

6

Cust Item ID:

Required Date: 02/05/2012 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.00							
Quality Control									

12/5/17

ME
12-05-17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-18-12 2:45:46 PM

Page 1

Work Order ID: 83491

83491

Parent Item: D2662-2

D2662-2

Parent Item Name: Saddle, RH In 206

Start Date: 18/04/2012

Required Date: 02/05/2012

Start Qty: 6.00

Required Qty: 6.00

Comments:

IPP: C00.11.01Removed P/O for Powder Coat - in house

processEC

IPP REV:D

REDESIGN PER ENG ERROR 11-11-17 JLM VERIFIED BY:DD

IPP Rev:D As per Rev D 07-03-19 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-001		Manufactured	No			100	Each	57.0000	1	6			

D6101-001

Saddle Billet

**

JL 12-05-13

Location	Loc Qty	Loc Code
MAT040	3	
69677	2	
76836	1	
MAT041	54	
80764	4	
81923	50	

83309

10

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	83491
Description: 206 Saddle, Inboard, Left side		Part Number:	D2662-2
Inspection Dwg: D2662 Rev: E DSK: Rev:		Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

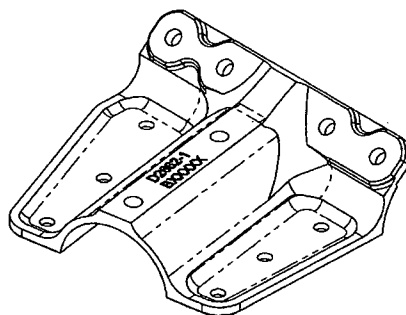
Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
A	3.611	3.621		3.616	3.616	3.616	3.616	3.616
B	0.256	0.263		.258	.258	.258	.258	.258
C	0.315	0.322		.316	.316	.316	.316	.316
D	2.495	2.505		2.500	2.500	2.500	2.500	2.500
E	1.674	1.684		1.679	1.679	1.679	1.679	1.679
F	0.100	0.140		.119	.120	.119	.119	.119
G	0.210	0.230		.219	.219	.220	.219	.219
H	0.615	0.685		.680	.680	.680	.680	.680
I	2.470	2.510		2.490	2.490	2.490	2.490	2.490
J	1.313	1.343		1.322	1.323	1.323	1.322	1.322
K	0.178	0.198		.188	.188	.188	.188	.188
L	0.470	0.530		.500	.500	.500	.500	.500
M	1.125	1.145		1.142	1.137	1.133	1.133	1.132
N	0.100	0.180		.140	.140	.140	.140	.140
O	0.100	0.140		.110	.115	.115	.116	.115
P	0.240	0.260		.245	.248	.251	.250	.250
Q	0.677	0.697		.686	.687	.687	.687	.687
R	0.540	0.560		.550	.551	.550	.550	.550
S	0.912	0.932		.922	.922	.922	.922	.922
T	0.787	0.807		.798	.797	.797	.797	.797
U	5.990	6.010		6.001	6.001	6.001	6.001	6.001
V	4.995	5.005		5.000	5.000	5.000	5.000	5.000
W	0.490	0.510		.498	.499	.500	.495	.500
X	0.312	0.319		.314	.314	.314	.314	.314
Y	0.990	1.010		1.001	1.001	1.001	1.000	1.000
Z								
AA	1.245	1.255		1.250	1.250	1.250	1.250	1.250
AB	0.490	0.510		.501	.501	.501	.500	.499
AC	3.745	3.755		3.750	3.750	3.750	3.750	3.750
AD	0.100	0.140		.125	.123	.123	.125	.124
AE	0.235	0.240		0.239	0.238	0.238	0.238	0.237
AF	0.510	0.515		0.510	0.510	0.511	0.511	0.510
AG	0.100	0.120		0.115	0.117	0.115	0.117	0.117
AH	1.565	1.585		1.572	1.577	1.573	1.573	1.572
Accept/Reject								

Measured by:	S	Date:	10-05-13
Audited by:	H.A	Date:	12/05/16
Prototype Approval:		Date:	

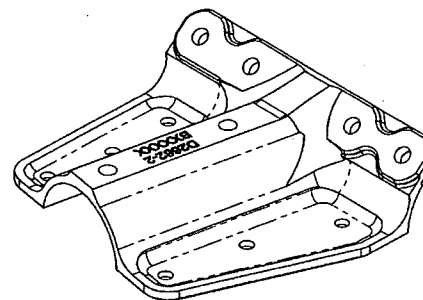
Rev	Date	Change	Revised by	Approved
D	02.12.12	R-format; Added Dim. U-W & DT8683, DT8686 & DT8695 A/B	KJ/RF	
E	06.07.05	Revised per drawing revision C	KJ/JLM	
F	07.03.21	Revised per drawing revision D	KJ/JLM	
G	12.01.10	Revised per drawing revision E	KJ	
H	12.03.08	Dimension AH added, O revised	KJ	

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 83491 MLJ

12/04/18



D2662-1 SADDLE, INSIDE, LH



D2662-2 SADDLE, INSIDE, RH

RELEASED
2011-11-16

REV.	DESCRIPTION	BY	DATE
E	REDRAW & REFORMAT DWG; 0.687 WAS 0.547 (B8-2, B5-4), REF NCR 11-035	CP	11.10.31
D	R0.188 WAS R0.30; Ø0.316 WAS Ø0.313	CB	06.11.08
C	INCORP' DEO 9122/9102/9085/9137	CB	06.05.29
B	ANGLE AND NOTES ADDED	KE	97.07.11
A	NEW ISSUE	DS	97.03.25
DESIGN		DART AEROSPACE USA, INC.	
DRAWN		KENT, WA	
CHECKED	A.S.	DRAWING NO.	REV. E
MFG. APPR.		D2662	SHEET 1 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SADDLE, INSIDE	NTS
DATE	11.10.31	<small>COPYRIGHT © 1997 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR DISCLOSED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

CHAMFER 0.050X45°
AROUND SURFACE
2 PL

4.642

4.632

3.826

Ø0.257
6 PL

Ø0.316
2 PL

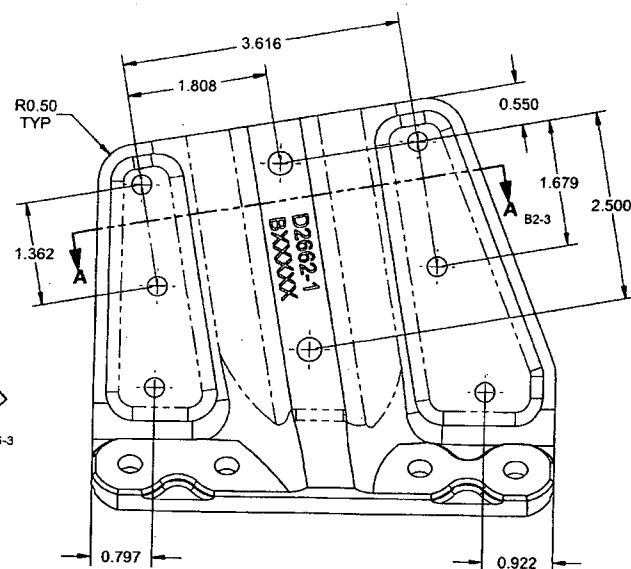
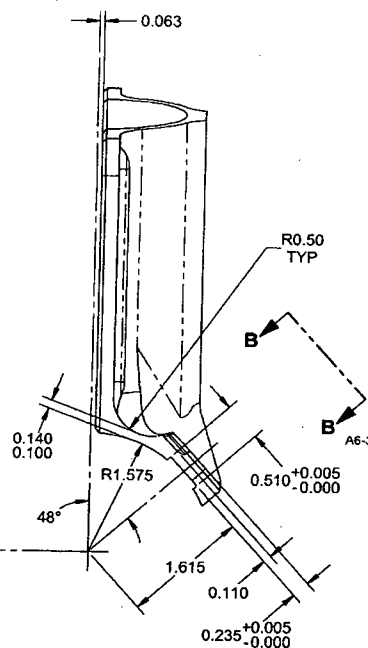
1.00

0.687

1.571
REF

80°

2.727



DRAWING SADDLE, INSIDE, LH

1) MATERIAL: 7075-T351 ALUMINUM PLATE PER QQ-A-250/12, AMS-QQ-A-250/12, OR ASTM B209
MAKE FROM D6101-001 SADDLE BILLET

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE GLOSS" (4.3.5.1) PER DART QSI 005 4.3

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX

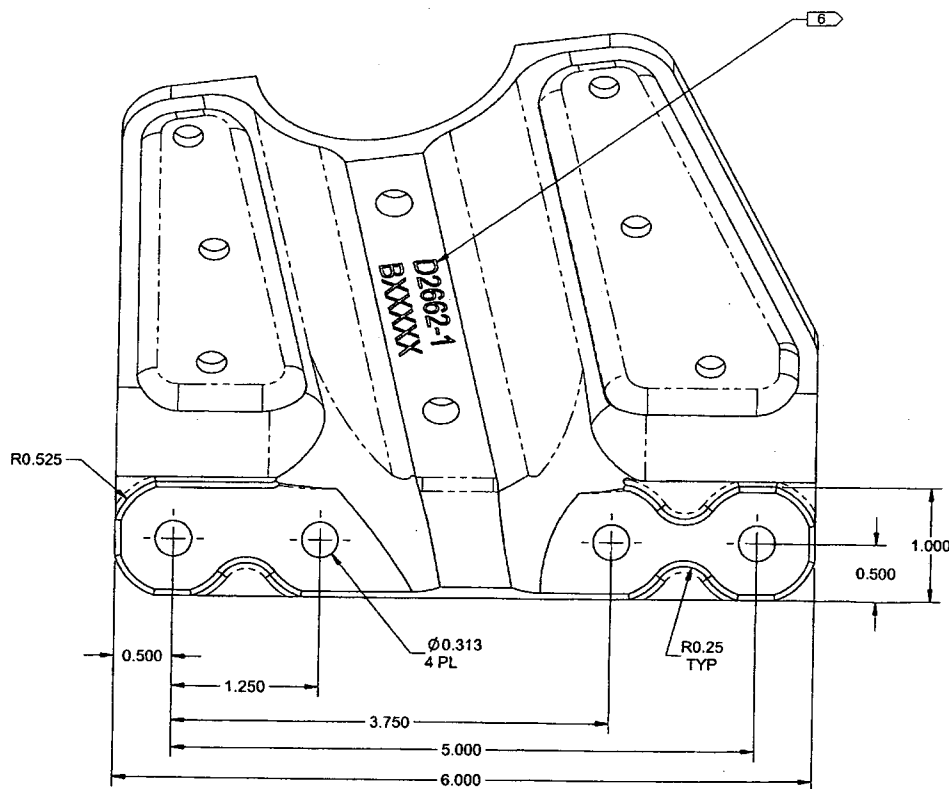
6) IDENTIFICATION: IDENTIFY WITH DART P/N AND B/N PER DART QSI 044 6.3 (CNC ENGRAVING)
USING MAX DEPTH OF 0.010 WITH MIN RADIUS OF 0.010

7) WEIGHT: 0.66 lbs

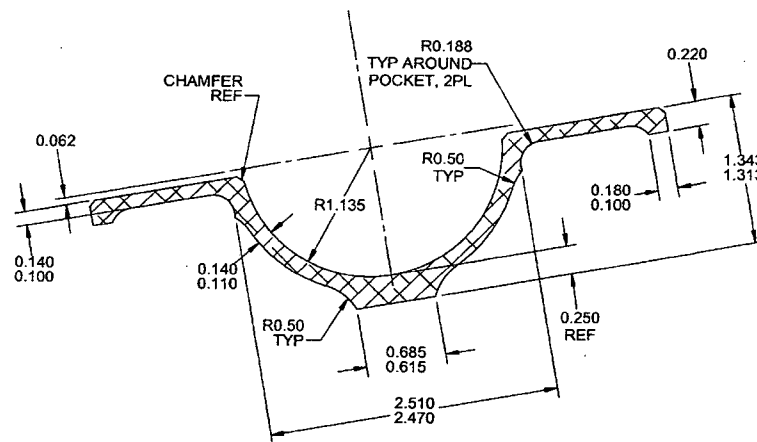
RELEASE
2011-11-16

DESIGN	40	DART AEROSPACE USA, INC.	
DRAWN	40	KENT, WA	
CHECKED	ASS	DRAWING NO.	REV. E
MFG. APPR.		D2662	SHEET 2 OF 5
APPROVED	40	TITLE	SCALE
DE APPR.	40	SADDLE, INSIDE	NTS
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83491



VIEW B-B
SCALE 1.5X B4-2
VIEW ROTATED

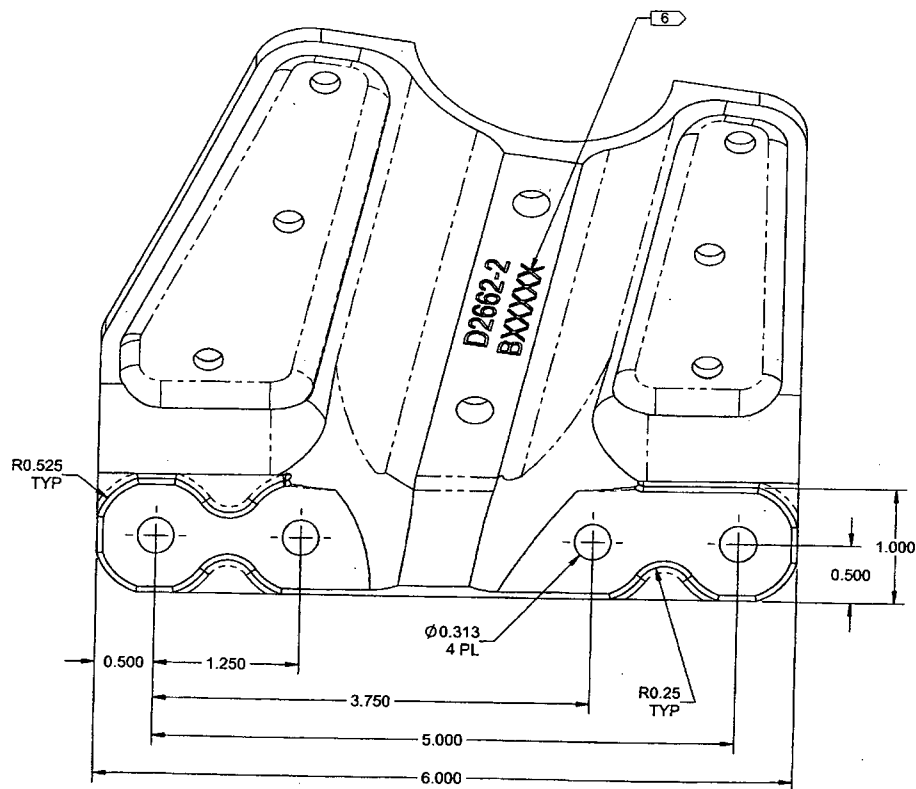


VIEW A-A
SCALE 1.5X C1-2

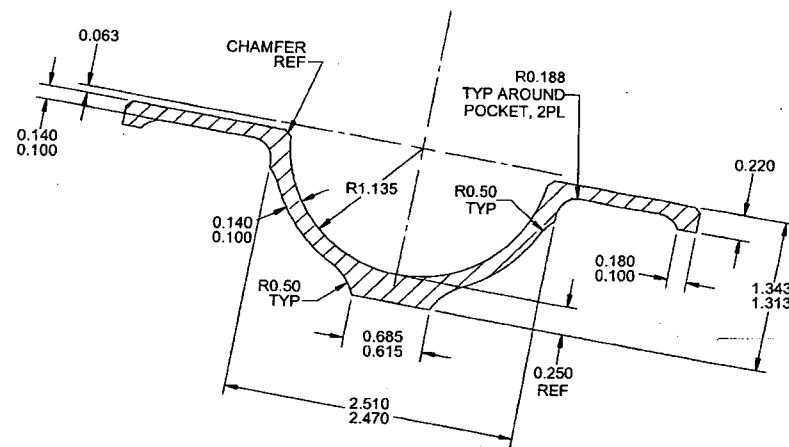
RELEASED
2011-11-16

DESIGN	g	DART AEROSPACE USA, INC.	
DRAWN	g	KENT, WA	
CHECKED	AS	DRAWING NO.	REV.
MFG. APPR.	g	D2662	SHEET 3 OF 5
APPROVED	g	TITLE	SCALE
DE APPR.	g	SADDLE, INSIDE	NTS
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83491



VIEW D-D B4-4
SCALE 1.5X
VIEW ROTATED



VIEW C-C C3-4
SCALE 1.5X

RELEASED
2011-11-16

DESIGN		DART AEROSPACE USA, INC.	
DRAWN		KENT, WA	
CHECKED		DRAWING NO. D2662	REV. E
MFG. APPR.		TITLE	SHEET 5 OF 5
APPROVED		SADDLE, INSIDE	SCALE
DE APPR.			NTS
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DART AEROSPACE LTD		Work Order: 83491
Description: 206 Saddle, Inboard, Left side		Part Number: D2662-2
Inspection Dwg: D2662	Rev: E	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
A	3.611	3.621		3.616	3.616	3.616	3.616	3.616
B	0.256	0.263		.258	.258	.258	.258	.258
C	0.315	0.322		.316	.316	.316	.316	.316
D	2.495	2.505		2.500	2.500	2.500	2.500	2.500
E	1.674	1.684		1.679	1.679	1.679	1.679	1.679
F	0.100	0.140		.118	.119	.121	.121	.119
G	0.210	0.230		.219	.219	.220	.220	.219
H	0.615	0.685		.680	.680	.680	.680	.680
I	2.470	2.510		2.490	2.490	2.490	2.490	2.490
J	1.313	1.343		1.323	1.323	1.325	1.324	1.324
K	0.178	0.198		.188	.188	.188	.188	.188
L	0.470	0.530		.500	.500	.500	.500	.500
M	1.125	1.145		1.130	1.133	1.137	1.136	1.134
N	0.100	0.180		.140	.140	.140	.140	.140
O	0.100	0.140		.116	.116	.113	.114	.115
P	0.240	0.260		.251	.250	.250	.249	.250
Q	0.677	0.697		.687	.687	.687	.687	.687
R	0.540	0.560		.550	.550	.550	.551	.550
S	0.912	0.932		.922	.922	.922	.922	.922
T	0.787	0.807		.797	.797	.797	.797	.797
U	5.990	6.010		6.001	6.001	6.001	6.001	6.001
V	4.995	5.005		5.000	5.000	5.000	5.000	5.000
W	0.490	0.510		.501	.501	.501	.501	.502
X	0.312	0.319		.314	.314	.314	.314	.314
Y	0.990	1.010		1.000	1.000	1.000	1.000	1.000
Z								
AA	1.245	1.255		1.250	1.250	1.250	1.250	1.250
AB	0.490	0.510		.500	.500	.500	.500	.500
AC	3.745	3.755		3.750	3.750	3.750	3.750	3.750
AD	0.100	0.140		.123	.123	.124	.123	.125
AE	0.235	0.240		0.237	0.236	0.237	0.236	0.236
AF	0.510	0.515		0.510	0.510	0.510	0.510	0.510
AG	0.100	0.120		0.116	0.115	0.117	0.116	0.116
AH	1.565	1.585		1.572	1.573	1.577	1.576	1.574

Accept/Reject

Measured by: J	Date: 12-05-14
Audited by: D.A	Date: 12/05/16
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
D	02.12.12	R-format; Added Dim. U-W & DT8683, DT8686 & DT8695 A/B	KJ/RF	
E	06.07.05	Revised per drawing revision C	KJ/JLM	
F	07.03.21	Revised per drawing revision D	KJ/JLM	
G	12.01.10	Revised per drawing revision E	KJ	
H	12.03.08	Dimension AH added, O revised	KJ	M

